





Minh Thang Cao

thangminhcao@gmail.com | (613) 864-7919 | thangcm.com | github.com/ThangMinhCao | linkedin.com/in/minhthangcao

Experience

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| Software Engineer Intern | Pattern | May 2022 – Aug 2022 |
| <ul style="list-style-type: none">– Developing server endpoints, data modules and <u>AWS Lambda</u> with <u>Node.js</u> + <u>TypeScript</u> integrated with <u>Terraform</u> which helps automate workforce recruitment and management processes (currently manual) by 90%.– Applying new design to the <u>Flutter</u> mobile app by creating an internal UI library with reusable widgets. | | |
| Software Engineer Intern | Kinaxis | Sep 2021 – Dec 2021 |
| <ul style="list-style-type: none">– Developed an interactive <u>data visualization</u> with <u>D3.js</u> library integrated with <u>TypeScript</u> + <u>HTML</u> environment which enhanced the ability to analyze supply chain allotment data and debug issues, assisted onboard Kinaxis's new developers by providing supply arrangement algorithm's insights. | | |
| Software Engineer Intern | Kinaxis | May 2021 – Aug 2021 |
| <ul style="list-style-type: none">– Investigated and implemented in <u>C++</u> a <u>product cycle detection graph algorithm</u> that combines variances of strongly connected components and cycles enumeration algorithms to enhanced supply planning outputs for over <u>200 global enterprises</u>.– Improved the <u>running time</u> of the platform in cycles detection from more than <u>12 hours</u> to <u>1 second</u> on a customer data set, produced high-quality and more detailed cycle data compared to the previous version. | | |
| Volunteer Front-end Developer | CU Blueprint | Sep 2020 – Aug 2021 |
| <i>Beneficent CRM</i>  | | |
| <ul style="list-style-type: none">– Developed a CRM full-stack web application for a non-profit organization that significantly improves the processing time of their services by migrating to software-automatic workflow.– Collaborated with developers and designers in an <u>Agile</u> team, building a user-friendly and responsive user interface with reusable components using <u>React</u> + <u>Typescript</u> and <u>CSS</u> that integrates with <u>Node.js</u> server. | | |
| Undergraduate Research | Carleton University | May 2020 – Aug 2020 |
| <i>Closest-pair Doubling</i>  | | |
| <ul style="list-style-type: none">– Explored a <u>divide-and-conquer algorithm</u> that calculates the closest-pair distance of points on multi-dimensional spaces without knowing coordinates using the <u>doubling dimension</u> definition.– Implemented from scratch with <u>C++</u>, <u>analyzed and proved</u> the algorithm's logarithmic <u>running time</u> in practice by analyzing the output data and successfully led the original research project to a conclusion. | | |
| Teaching Assistant | Carleton University | Sep 2020 – Apr 2022 |
| <ul style="list-style-type: none">– Participated in engaging tutorial sections to help professors guide more than 2000 students through materials of Computer Science courses, graded and provided detailed feedback for students' assignments and tests.– Holding weekly office hours to answer questions and help students improve their understanding of the materials. | | |

Projects

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| Online  | <i>Python, Flask, JavaScript, HTML, CSS, Jinja2, Socket.IO, SQLAlchemy, PostgreSQL</i> |
| <ul style="list-style-type: none">– Built an online <u>real-time</u> Go game using <u>Flask</u> with <u>Jinja2</u> template integrated with <u>Socket.IO</u>.– Designed the <u>SQL</u> data models with <u>SQLAlchemy</u> and stored data in a <u>PostgreSQL</u> database. | |
| Connect 4  | <i>JavaScript, React, HTML, CSS, Node.js, Express.js, Socket.IO, MongoDB</i> |
| <ul style="list-style-type: none">– Developed a full-stack web game using the <u>MERN stack</u> technologies with <u>React</u> responsive user interface and <u>Node.js</u> RESTful API endpoints that process queries efficiently. | |

Education

Carleton University	Ottawa, Ontario, Canada
<i>Bachelor of Computer Science</i>	Sep 2019 – May 2024 (Expected)
CGPA: 11.64/12 (A+). On Dean's Honour List since 2019.	

Skills

Languages: Python, JavaScript, TypeScript, C/C++, Java, Kotlin, HTML, SQL

Technologies: React, React Native, Node.js, Express.js, Flask, SQLAlchemy, MongoDB, CSS/SASS, Git, Linux